

CHANNING (W.)

A CONSIDERATION
OF THE
CAUSES OF INSANITY.

BY
WALTER CHANNING, M. D.

[REPRINTED FROM THE FIFTH ANNUAL REPORT OF THE MASSACHUSETTS
BOARD OF HEALTH, LUNACY, AND CHARITY.]



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The following pages can claim to be little more than the merest outline of a study of the causes of insanity. More than this would be impossible within the limits of an ordinary paper. A close analysis of the subject would require a consideration of the entire life of the Nineteenth Century, with a view of ascertaining those influences which have combined to produce a type of man so often unequal to the struggle for existence, and that, too, when the surroundings for mental health seemed fairly favorable.

I have been led to view the causes of insanity from a general rather than from a constricted point of view, because the latter field has been already pretty thoroughly worked. And, after all, to go back only so far as the immediate cause, is (in the case of a condition of disease, or mental and bodily alienation, like that of insanity) little more than reaching a remote effect or a group of symptoms; it is not touching bottom, nor getting at the true source.

In considering the causes of an ordinary bodily disease, we naturally enough look to the statistics of the hospital where this disease may be treated, to throw some light upon its nature, cause, treatment, etc. If, for instance, we have a case of pneumonia, rheumatism or typhoid fever, one or two steps of statistical investigation will easily carry us back to its true cause. It is not so with insanity, however, which is a disease requiring a large knowledge of facts in the personal history of each one of its subjects to determine the

combination of causes which led to its inception. These causes, in many cases, can only be ascertained after a careful, patient and minute investigation. Therefore, when we take up an insane hospital report, and see such and such a number of cases ascribed to ill-health, intemperance, business cares, family affliction, domestic worry, and a hundred other circumstances of minor importance (a proportion of them being even ludicrous in their nature), we see at once that these things do not represent the sum total of all the elements going to make up what we might call the associated cause; but they separately represent only a single link in a chain of causes, or perhaps the last cause leading to the outbreak of the attack. If we should qualify the expression used by saying *direct exciting causes*, we should come nearer the mark; but to accept what is often little more than accident, or a ripple on the surface, perhaps, as a true and entire cause, is too narrow and circumscribed a method of viewing the subject.

I have been led to the conclusion that hospital statistics are far from giving us reliable information on the causation of insanity, from a careful study of a large number of them. On this subject, more than on almost any other, I have found the most varying methods of tabulation pursued. There is a conflict of opinion as to the very classification of a cause; one superintendent calling some particular cause a moral one, and another superintendent calling it a physical one, while a third will perhaps leave it out of view altogether. I have been particularly surprised with the large number of cases where no cause was ascertainable; there being, for instance, in a group of 24,523 cases, 33.8 per cent., or one-third, whose origin was unknown. I say surprised, meaning to find so many acknowledged as unknown in a table of supposed *known* data. I should be really surprised if, in more than half of the cases admitted to insane hospitals, we could with certainty ascertain the cause of the attack after a hasty and necessarily superficial examination, such as is usually made on admission to the hospital. During the patient's residence in the hospital, it is also often impossible for the

hard-worked medical officer, with the best of intentions, to get any satisfactory history of the patient's life at and before the time the attack developed. The insane hospital is not, in fact, the best place to make a study of the causes of insanity. It is there that the wreck is brought to be repaired, but often no evidence of the winds, the waves, the rocks, or other and more hidden dangers, is revealed.

In our efforts in recent years to bring the study of disease down to a strict, scientific and material basis, we may have gone too far in applying the rule to insanity. We have seen, and we see to-day, the attempt made to establish insanity as a *physical* disease; to make it only a disease of an organ, as pneumonia is a disease of the lungs. We see that the attempt is, in part, a reaction from the visionary theories of the spiritual or psychical nature of insanity current a few years ago, and we are only too glad to welcome it as an evidence of progress in the right direction. While we welcome it, however, it is clear enough to be seen that some persons do not give due consideration to the great number and variety of the elements which truly constitute insanity, and hence adopt a superficial and partial method of classification. No one has been able, as yet, to give the physical atoms of human intelligence, or to perfect a physical formula for the construction of man's immortal soul; and until this can be done, a purely physical theory to explain away the group of phenomena called insanity will be only partially correct.

Insanity we call a disease, but, more correctly speaking, it is a *result*. It is a name applied to an indefinite number of changes in the manifestations of body and mind, when presented to such a degree that self-control is lost. The *loss of self-control* is the boundary line; on one side the individual is called sane, and is at liberty; on the other he is called insane, and deprived or restrained of his liberty. In other words, a man's disposition, and body also, may undergo a great variety of changes, making him very unlike himself, or alienating him from himself to a marked degree, still he is not called insane; he may be a "little crazy," or

“will become insane.” Let him arrive, however, at the point where these changes make it impossible for him to live in harmony with society,—where he so far lacks self-control that he cannot properly conform to its usages,—and then he will be called insane; but no new condition of body or mind is present, one step further only has been made. This one step, however, while representing little so far as the man’s mental and physical condition is concerned, means an entire change in his social status, as well as his legal status, and from this point of view is of great importance. It will then be seen that the use of the word insanity is really an arbitrary one. It is in this arbitrary sense that the word insanity is principally useful, and it should be used to denote a condition, the result of certain changes in the human being, which renders him unable to control his own actions, deprives him of his personal freedom, and places him under restraint, or in the care of others.

I do not by any means desire it to be understood that, when giving this wider meaning to the use of the word “insanity,” I underestimate the physical or bodily changes occurring in cases of insanity. This I do not intend; but I desire to show the interdependence of so-called physical causes, on so-called mental or moral causes. These I regard as often so inseparable, that they must be taken together as a combined causation, and cannot properly be designated either by the one name or the other. The assigned causes found in hospital reports, upon which many papers on the causation of insanity are founded, are only the most prominent, or most apparent exciting causes, and are chiefly useful to show the kind of mental or bodily strain which appeared to have a bearing on the development of the disease at the time it was first noticed.

Take for instance the 24,523 cases of insanity selected at random from hospital reports that I have already alluded to. Of these cases, 17.3 per cent. are said to have been caused by “ill-health,”—though this percentage would have been larger, perhaps, had the causation of the 33.8 per cent. of unknown cause been ascertained. What was this ill-health?

How was it caused? Did not overwork, intemperance, domestic affliction, business anxiety, mental worry, hereditary influences, and numerous other influences, have some bearing on the development of the disease? May not all these things, in some cases, have combined together to produce the disease? It is easy to imagine a man inheriting an unstable mental constitution, struggling along through many years of poverty, finally arriving at a point where marriage became possible; then, perhaps, after a few years, breaking down in business and losing his wife, or child, taking to drink, and finally becoming insane. Now, here are several factors, either one of which it is customary to assign as a cause of insanity. Which one shall it be? If the man goes to a lunatic hospital, the friends will either know nothing of the hereditary predisposition, or forget to mention it, or conceal it (the latter is a common weakness, toward which I am very charitable.) They will say he lost his wife, and his business failed, and he drank a good deal. Now, the chances are that the friends will exaggerate the connection of the drink with the case, and the medical officer at the hospital will seize upon this particular factor as the *cause* of the attack, and intemperance will be assigned in the hospital records as the sole cause. I should say in such a case that no one cause could be held responsible. Here was a man unfavorably placed in the beginning, with inherited mental instability. Life under the most favorable circumstances would be up-hill work. The daily trials and ordinary annoyances of a successful business life might lead to insanity before fifty. The early *poverty* would be a very unfavorable influence in such a case, perhaps interfering with proper physical development. Marriage would bring added cares, and domestic affliction would still further strain the power of resistance. The drinking would probably be developed partly as a result of the great strain, and perhaps partly as a consequence of inherent mental weakness. The whole causation of the attack would depend on all these factors acting upon each other, and gradually wearing away in combination, little by little (as constant dropping wears a

stone), the innate power of resistance in the irritable and unstable mental structure of the individual.

How is it possible, in such a case as the one I give, to tabulate, in one word, the causes of the failure and mental decay? The life of every individual is so secret and deep that often no one can divine the processes that go on from year to year and lead to outward action. The latter we see, yet they give but a limited idea of the care and elaboration required in their preparation. The whole progress and development of the disease in the case under consideration, may have consequently been masked, or completely concealed, until finally the point where self-control is lost was reached, and the individual yielded to a craving for a stimulant.

To approach, then, the study of the causation of insanity from this widest point of view, these minor *exciting causes* must at first be left out of consideration, and attention be turned in the direction of the *predisposing causes*. The first one, which includes others, is the *influence of civilization*. The savage in his native state rarely became insane. He led essentially an automatic or animal life. He was satisfied with a reflex enjoyment of such pleasures as nature afforded him, and did not fatigue his brain-cells with a minute analysis of an infinite variety of new ideas, feelings and desires. While he lacked the higher kind of enjoyment growing out of an intellectually cultivated appreciation, he was not subjected to the strain which arises from the cerebral processes that are necessary to such an interpretation. He was not conscious of what he missed, and therefore experienced no loss. Being but little more than an animal, imagination was lacking, and hence a conscious or systematic desire to improve his condition was hardly possible. He could not conceive of any higher or better life. His work was physical; his pleasures and his vices, also, were of the body; and, like a plant or animal, he grew and thrived, if obedient to the ordinary laws of nature, or perished if unobservant of these laws. Preservation of life by artificial means, even so late as our North American Indians, was

understood but to a limited extent. The savage, if sick, was an incumbrance to be gotten rid of, not only on account of an ignorance of the nature of disease, but also from the impossibility of sustaining life under the existing unfavorable conditions. There was, furthermore, the instinct of nature in the savage to destroy the unhealthy individual. Hence a certain definite type of physical vigor was maintained, and congenital defects were rarely transmitted. If by accident transmitted, they were certain to be destroyed in time.

Passing down from the period of the savage, and coming to the times when a civilization existed in some ways similar to that of the present day, — it is probable that the comparative frequency of the occurrence of insanity was less than at present. The ancient Egyptians, as well as the Greeks and Romans, attained to a high degree of culture, and they were addicted to excesses, which would now be ranked as causes of insanity. Yet the disease did not become general, for that degree of instability which easily leads to insanity had not been reached. The conditions were still favorable to animal life, being simple and natural when compared to those of the present day. The moral law was still lax, but perfect health was necessary and almost imperative, and the lives of the people were ordered after hygienic rather than moral or social laws. If there was physical strain, there was not excess, and the same was true of the work put upon the brain; or, in other words, the proportion of supply to demand was in keeping with the laws of health and nature. Modern civilization meant a departure from this state of automatic existence in a greater degree, and the entrance into a state of personal consciousness. This great change from a condition of objective life to one in which the power of thought and feeling became subjectively exercised, required centuries of education. As we study the histories of old nations, we are able to see how very gradually this transitional process has taken place. One epoch developed the emotional qualities of the mind, another epoch the moral, and another the intellectual quali-

ties. As the standard of human attainments became higher, the use of reason, in a constantly increasing ratio, took the place of the uncivilized instincts of force which controlled the savage.

The life of the highly civilized European nations, during the past century, has been peculiarly and extraordinarily favorable to the development of insanity; for the means of cultivating and developing the mind have increased to an extent unprecedented in the history of the world. Society has expanded and advanced in a thousand directions, bringing a multitude of new perplexities, cares and responsibilities, before undreamed of. When we come to a consideration of American life in particular, we find even more of those influences at work which are so peculiarly favorable to the development of mental disease.

When the Pilgrims first landed in this country, they possessed but few of those peculiar tendencies which, though now prevalent to a greater or less extent throughout the whole civilized world, are more intensified in America than elsewhere. Our forefathers were the possessors of a physical and mental organization which enabled them to overcome hardships that would now produce many cases of insanity. They were of a sturdy, self-restrained cast of character, and under the guidance of principles which made correct habits and modes of thought a natural automatic manner of cerebral action. Such great afflictions as war, poverty, and the loss of friends and relatives, produced but a comparatively small number of cases of pronounced mental disease; for there was that inherent mental equipoise, dependent to a large degree on good physical condition, which enabled the mind to meet and overcome an unusual or excessive strain. Then, too, the interests possessed by the individual were not so numerous or varied as to make it difficult for him to carry them all along together without great mental exertion. And, furthermore, he was accustomed to manual labor, and in this way kept his body in a state of health.

When our republican form of government was established,

which threw the control of the people directly on themselves, and gave them a freedom before unthought of, there was, at the same time, a burden placed upon them calculated to stimulate and fire the ambition of each individual to seek position and make himself one of the ruling elements of the country. With this new and untried power came new duties and responsibilities, which were outside of and foreign to the experience of most of the people. Here were complicated problems requiring mental application in entirely new directions; here were questions of great magnitude to be settled for the first time, by persons before largely unfamiliar with their various relations and limits. In these circumstances, I think, may be discerned the creation of some of the influences which have exercised considerable power in developing the type of character which is somewhat peculiar to the American people. As we have seen, very suddenly, almost unexpectedly a comparatively, small number of persons found themselves a ruling power in a land of such vast extent that it contained a climate of every kind, and was, in fact, almost a whole world in itself. The gates of an Eldorado were suddenly thrown open and a little band of dazed but sturdy and honest colonists passed in to take possession. They little realized at first what boundless realms belonged to them, but soon the world began to flock in after them, and to some extent they appreciated the vastness of the land. So great were the natural advantages of the country that hundreds of cities and towns were founded, and numberless enterprises started, almost before they had the opportunity to change their homespun garments for more stately garb. The universal progress of civilization in other countries as well as this, and the endless resources of this country, gave rise to a large number of new inventions which vastly increased the possible capacity of these resources themselves. Inventions multiplied resources, and resources multiplied inventions.

The essential characteristic of our higher civilization as we see it to-day, consists in a desire to realize the ideal, leaving the grosser animal life, *as such*, out of sight. This

ideal being imagined, it remains to give actual life to it, and in our endeavor to do this every resource is taxed. We next find that, having discovered the means to attain our object, there is still something beyond. The intellect has in the meantime developed and projected our mental vision further than before. What was once an ideal end, is now only a step. So it must be ever where so grand an end as immortality is to be striven for. The sinking of the animal nature, and the development of the mind to such a point that the true meaning of life may be understood, is a part of the process of human evolution. Civilization may be regarded as little more than a process of nature. It is a growing process of certain functions, which before had lain dormant. The time had not arrived earlier for the development of these functions. Civilization does not mean the newspaper, or the railroad car, or the telegraph, or the nineteenth-century mode of life. This life, with all its conveniences, improvements, inventions and luxuries, signifies the age of mental development; an effort to realize on earth, it might be said, an unconscious idea of future happiness. With such opportunities of a perfect life, we are still far from adapting ourselves to them, and great mental and physical suffering and loss are one necessary result. As civilization brings into daily use the highest powers of the mind, these powers are overtaxed and must suffer. The use of these powers means, as well, a new and peculiar use of the physical system, the nervous system in particular.

As every class in society is instrumental in establishing a general or national type of character, so in a community great or small, each class or individual according to mental and bodily endowment and social position, will be affected by the civilizing process. And as rapid civilization is the most pronounced event of the present age, so must the diseased conditions resulting from the destruction of the materials made use of and cast one side by it, in its rapid course, become especially prominent.

The *race-character of the population* is another influence which has exerted a marked effect on the power of our

people, as a whole, to accept our modern civilization. In the centre of our great body of people, representing as it were the brain and soul of our national life, we find a nucleus of Americans retaining many of those characteristics which first entitled them to the name of "Americans." Grouped around them are large numbers of various foreign races, — the Irish coming first, then Germans, English and others. A recent paper of Foster Pratt, M. D.,* states that, in the thirty years from 1820–1850, 2,250,000 immigrants came to this country. In the latter year the total population was 23,191,000, and he thinks 2,240,000 of the foreign population still remained alive. The total number of insane was 15,610, and of these 2,049 were foreigners. This would make about a proportion of one-tenth of foreigners to the whole population, and a proportion of one-seventh of the foreigners insane. The census of 1880, which was much more complete, as we all know, than that of 1850, gave a total population of 50,155,000; the number of foreign-born being 6,679,000. The aggregate number of the insane was then 91,997. Of these, 26,346 were foreign born. It will be seen by these figures, that a little less than one-seventh of the population furnished nearly one-third of the insane. In 1850, of the native population, there was 1 insane in 1,545, and of the foreign-born 1 in 1,095. In 1880, of the native population there was 1 insane in 662, and of the foreign-born, 1 in 250. The average proportion of insanity for native whites, including the whole United States, was, in 1880, 1 in 618; of foreign whites, 1 in 250; of the colored races, 1 in 1,097; while the total average for the entire country was 1 in $545\frac{19}{100}$.

The statistics of the Board of Health, Lunacy and Charity, in the foregoing report, are a confirmation of these figures of Dr. Pratt for the State of Massachusetts. On page xci it is stated that the larger hospitals have reported on the parentage of 3,414 patients admitted during the last four years. Of these, 1,500 were of American parentage; 1,283

* "The Increase of Insanity in the United States: Its Causes and Sources." By Foster Pratt, M. D. Kalamazoo, Mich., 1883.

of Irish parentage; and 181 of Canadian parentage. The total foreign parentage was 1,914. This would make about one-third of the whole to be of Irish parentage, and nearly three-fifths of foreign parentage. These figures especially show the undue proportion of insanity among recent immigrants resident in Massachusetts; but they also bear out other statements as to the excessive proportion of insanity in our foreign population. The report states that "the same proportion does not yet exist among the accumulated population of the hospitals; but a few years hence even this permanent hospital population will show a majority of persons of foreign parentage, and almost as many of Irish as American descent."

As I have already said, and as we see from these statistics, the foreign population coming to our shores take an important place in all estimates of insanity in this country, and to a certain extent are an indirect cause. In the first place, we receive a distinct pauper class, who have been in such a condition of suffering and want in the old country that unless they are relieved they will shortly go to the almshouse, prison or lunatic asylum. This class represents the most degenerated foreign element, and becomes insane in a greater ratio than any other. By reason of the public care bestowed on them, their lives are prolonged, and they live often to extreme age, largely swelling the number of inmates in our various institutions. But worse than this, they may multiply, and have a numerous progeny who are born with the parental defects intensified, and in their turn these swell the number of our pauper and insane classes. Unlike the old nations, we not only receive the weak, diseased and imbecile of other countries, but keep them alive, and afford them opportunities for increasing their numbers.

We receive another class of foreigners who cannot clearly be called paupers, yet they have been only partially successful in their own country, and emigrate in the hope of bettering their condition. They are, for the most part, but imperfectly educated, have learned no regular trade, and, so far as obtaining occupation goes, are largely dependent

on accident. They leave the old country, perhaps, in a time of political excitement or financial depression, and arrive in larger numbers than are justified by the need of laborers in this country. A certain proportion of them find work which is more or less suited to their capacity. Another portion find work which is not adapted to them, and which in the end must be relinquished, either from physical or mental disability. A third portion find almost nothing to do, and drift about from one place to another, dependent a part of the time on public aid. This whole class, as I have said before, are not out-and-out paupers, but a fair number of them are destined to become paupers.

A third class of foreigners coming to our shores is composed of laborers, artisans, mechanics, trades-people and farmers, who have been at home a thriving, industrious and respectable element in the community. They have been self-supporting, and apparently able to live under the ordinary conditions of life in their own country, though the very fact of their leaving may raise a presumption that they, too, may be lacking in stability. Arriving here, they find ready occupation, which they at once enter upon, and are apparently on the road to permanent success, as well as to citizenship. That they are of inestimable service in developing the resources of the country no one can doubt. That the country might, but for them, now be half a century behind in the material progress she has made is also possible. And while it is also quite possible that native-born Americans would have become insane in large numbers in endeavoring to accomplish the results which this foreign labor has accomplished, and perhaps could never have done as much, it is open to question if the condition of our population would not have been more natural and healthful had we received even a smaller number of this class who have to a certain extent forced the material development of the country. They have supplied us with the means of accomplishing gigantic results in a short time; but, it is not unfair to assume, the inventive capacity of the American has been

stimulated and often overworked in consequence of all such easily accessible foreign labor.

As already shown, two classes of our foreign population would, under any circumstances, be prone to insanity. Taking them as a whole, they must necessarily meet with conditions in a country like ours, which will produce a profound impression upon them. They come with the inherited habits and peculiarities, and it may be added, in many cases, with the weaknesses of the old European nations. They are unaccustomed to the acquisition of money, or the holding of property. They have never held political positions. Religion may have been a matter of form or tradition. Their occupation may have been handed down for generations. Their general education is deficient. Their very vices are inherent in the particular nation to which they belonged; dependent on the social system, as well as on the type of character, the form of religion, and, to a certain extent, the climate of that country. Their physical condition also presents important modifications, and idiosyncrasies, dependent on their national habits, age, occupations, etc.

Taking the foreigner as he arrives here, then, we find a mixed type so far as physical condition is concerned. If we examine his mental and moral condition, we often find him narrow in his views, little used to independence of action and leaning on a higher intelligence. For the first time he is placed upon his feet and has the opportunity given him to act for himself. He has a chance to earn large wages, buy a house, educate his children, take part in elections and hold public offices. If he embraces these opportunities, he is stimulated to work as he never did before. And furthermore, his brain is stimulated and receives new impressions and ideas which were before unknown to it.

While all these things may only be influences in the right direction, from an abstract point of view, in the instance under consideration they subject the individual to a new and severe strain. If he have the physical strength, the mental equipoise and the power to overcome inherited ancestral and national vices and weaknesses, he will be aided and benefited.

Otherwise he must go to the wall, degenerate and become impoverished or insane. If in harmony with his environment, in other words, he gains mental strength and vigor, otherwise he loses what he originally possessed.

There are many minor considerations which increase the difficulty of the foreigner in his attempt to amalgamate with our people, and which, of course, correspondingly increase the mental strain. One of these is the changing of the habits of living, eating and drinking. These habits must be changed in accordance with our climate, form of occupations, etc., otherwise the individual must suffer. Drinking and smoking cannot be indulged in as they were in the mother country, without danger of physical and often mental impairment. The lessened opportunities for recreation also often act injuriously on the foreigner. The separation from old scenes and associates removes a quieting and peaceful influence on his mind. Even learning the English language is a source, in some cases, of anxiety and consequent mental strain.

In the second generation the foreigner has already begun to adapt himself to the life he finds here, and is less seriously acted on by those new conditions which are of minor importance. He now presents a modified type of what he previously was. He must have, of course, by right of inheritance, most of the ways, habits, manners and customs of his parents, as well as the peculiarities of the race to which he belongs. But he also inherits the experience of the new surroundings, which his parents have already unconsciously acquired. He has the advantage, also, of being born in the country which he is to inhabit, and thus is able to adapt himself to his environment from the very first, and at a time when his mind is in a normal and impressionable condition.

Unfortunately our foreign population, who are often so poorly adapted to struggle with the new life of the country, are placed in many of the positions where the influences are the worst for their mental vigor. They are expected to do the hardest manual labor of almost all kinds, and consequently suffer great exposure. They form the bulk of the operatives in the mills, and are the greatest immediate suf-

ferers in consequence of financial depression. As servants in families they are often overworked, and by lack of discipline and proper example, learn habits and customs which make them both unstable and vicious. They live in the most unsanitary dwellings. They are often frequenters of the lowest drinking places, and in other ways are sufferers from many of the worst excesses of American life. In time, correctives and compensations may appear, and do appear for these evils; but at present the result is, increased, and, I fear, increasing insanity.

Another of the very important general influences in producing insanity is *hereditary predisposition*. It has been customary, in some quarters, of late years, to overlook or undervalue the frequency of this causal element. I find, for instance, in my series of 24,523 cases, but $2\frac{1}{5}$ per cent. ascribed to this cause. I regard it as an error to place heredity in a table of causes, as in nine cases out of ten there is merely an inherited predisposition, and not a simple and direct connection between the cause and effect. The idea that the percentage of heredity conveys to my mind is this,—that many of the insane person's family were insane, and hence the hereditary element was the most conspicuous one. In my own observation of cases I have not failed to find, in at least fifty per cent., some clear evidence of inherited tendencies playing a part as an element of the cause of the attack. Not that insanity is inherited *directly* as such, but well-marked inherited tendencies, capable of development into mental impairment, I have found in the frequency I mention. On a casual acquaintance with these cases, these tendencies were not prominent; in some they were not discovered for a time, but as my opportunities for tracing back the antecedents of the cases increased they gradually came to the surface. Maudsley says* :—

“What is the exact proportion of cases in which some degree or kind of hereditary predisposition exists, must needs be an unprofitable discussion, in view of the difficulty and complexity of the

* Pathology of Mind.

inquiry ; suffice it to say broadly that the most careful researches agree to fix it as certainly not lower than one-fourth, probably as high as one-half, possibly as high even as three-fourths."

A French writer, Ribot,* has said that "heredity is that biological law by which all beings endowed with life tend to repeat themselves in their descendants ; the conditions . . . grow more and more complex in proportion as we ascend from the vegetable world to the higher animals and thence to man." Every quality and attribute of either mind or body is capable of transmission more or less directly. Even the slightest physical peculiarities descend in both man and animals from one generation to another. Some of these peculiarities are modified and disappear, in the course of time, under the influence of cross-breeding, or intermarriage, or surroundings. But if the conditions are favorable, a similar type will descend. The Jews are often cited as a nation preserving for many centuries the same physical and mental peculiarities. And this can be accounted for in part by certain race peculiarities, unknown in any other people. Renan is quoted by Ribot as saying that "the Semitic race has never understood civilization in the sense we apply to the word ; no great organized empires, no public spirit are found in its bosom. The questions of aristocracy, democracy and feudalism, which constitute the whole secret of Indo-European history, have no meaning for the Semitic race." Heredity has, however, exerted a baleful influence on the Jewish race, Ribot states, by sowing the seeds of sundry mental disorders, the results of intermarriage. The number of Jewish deaf-mutes is enormous. Idiocy and mental alienation are also frequent.

Ribot has shown the inheritance of like qualities of mind in the families of poets, painters, men of science, statesmen and soldiers, and Galton, in his work on Hereditary Genius fairly proves that men of note in England have had remarkable fathers to the extent of thirty-one per cent. ; brothers

* Heredity : by Th. Ribot.

to the extent of forty-one per cent. ; sons forty-eight per cent. ; grandfathers seventeen per cent., etc.

The late Mr. R. L. Dugdale of New York, in his elaborate and widely quoted paper on the "Jukes Family," has also shown the remarkable tendency of ancestral traits to transmit themselves, under favorable circumstances, to one generation after another. Among the conclusions he arrives at are these: Where the organization is structurally modified, as in idiocy, insanity and many diseases, the heredity is the predominating fact in determining the career. The tendency of heredity is to produce an environment which perpetuates that heredity. The environment tends to produce habits which may become hereditary, and especially so in pauperism and licentiousness.

From the above quotations it will be seen how serious and important a part heredity may play in every case of insanity, although, as I have stated, a tolerably direct relation cannot be traced in more than one-half of those passing under ordinary observation.* A child from early age comes under the influence of inherited traits. In his sentiments, emotions, feelings, he is reproducing the experience of those who have gone before. If he inherits strength of body and character, he has a surplus which can be drawn on to resist or overcome the obstacles that oppose his progress, and fit him for the strain of adult life; the environment of insanity may exert an unfavorable influence on him, but, unless the circumstances are unusually aggravated, he will be apt to pass on to old age, dying from intercurrent disease, or from natural causes. If, on the other hand, he has transmitted to him mental or bodily defects, he feels their influence very early in life, and, unless very judiciously educated, the neurotic or insane temperament will probably develop itself. There is the constant undercurrent of mental irritability, ever present, and unfavorable surroundings gradually strengthen the stream, and bring it nearer the surface. The difficulty with a bad heredity is, that it is so little understood. The whole subject of mental phenomena is naturally shrouded in darkness, and we consequently do but little, in

most cases, to counteract bad inherited tendencies, which are often not developed early, though they are at work in helping to form habits, or ways of thinking and living. Even with a conscious desire on the part of parents to counteract bad inherited traits, it may be impossible for them to do so, — each child being made up of a combination of qualities inherited from both parents, which are beyond their powers of comprehension. These qualities react on each other in a manner that was hardly supposable from the known data, and the result will be a character quite unlike that going before.* Then, as Mr. Dugdale has said, the environment is often but little more than a continuance of the heredity, and fosters and develops the defects which a very different environment might modify or destroy.

The *social* environment, as it might be called, is especially apt to act from the beginning and continuously, through many years. Thus, if a child is born in poverty or pauperism, he labors under a depressing or devitalizing influence which comes into most of the acts of his daily life. He cannot get the ordinary nourishment or clothing that he requires; his higher tastes must be sacrificed; he loses the refining and healthful influence of pleasures derived from nature; he has but little of a cheerful and helpful home influence. He is hardened and narrowed in his views of life, and easily rebels against society, degenerating perhaps into a criminal, or seeking forgetfulness of his hardships in drink and the indulgence of small vices. This environment is the common one to large numbers of persons, and one peculiarly favorable to the development of inherited parental or ancestral defects. As the social environment improves, its influence is exerted more in the direction of a good effect.

Physical heredity and environment, also, have a very close connection, and this environment can be more easily appreciated and corrected than either a moral or a social one. If a child inherits a tendency to insanity directly, it is easily understood and can be corrected. The same is true of a

* A better understanding of the laws of heredity would make it easier to comprehend what sort of a character we might expect in most cases.

neurotic tendency. Intemperance, consumption, syphilis, scrofula, apoplexy, heart disease, gout, are physical diseases all capable of transmission, and indirectly, under favoring surroundings, or by reason of substitutive metamorphosis, prone to appear in the form of insanity. Their presence is a fact easily understood, and their reappearance can to a certain extent be guarded against by early, careful and continuous precautions.

From these brief remarks it will be seen how constantly heredity presents itself in every relation of life. We cannot escape from it, and it is therefore better for us to endeavor to appreciate it, and profit by the experience it imparts to us.

Education, though usually not a direct cause of insanity, is so often misapplied that it is responsible for the occurrence of many cases of insanity. It should be a restraining, a retarding influence, to guide us along the paths that lead away from insanity, but often it leaves this out of account altogether. Maudsley says in reference to education : * —

“Next in importance to the inborn nature, is the acquired nature which a person owes to his education and training : not alone to the education which is called learning, but to that development of character which has been evoked by the conditions of life.”

He adds that the statistics of lunatic hospitals which show how many persons of education have become insane are of no value whatever, until we agree upon what shall constitute a good education.

For convenience, education may be divided into *moral* and *school* education. The former, which we often forget to call, or even regard as education, is much the more important. It begins as soon as the child is old enough to comprehend what is said to him, goes on through the school years in combination with the school instruction, and ends, in one sense, when the individual assumes all responsibility and control over his own actions. From another point of

* Pathology of Mind.

view it may be continued through life. It is this form of education which is neglected among all classes, and especially among those who need it the most. We may have had in earlier years much moral instruction of a strait-laced, puritanical character, favoring an abstract system of morals, rather than a practical method of living a better, more upright and healthful life under the conditions to which we were exposed. But a true moral education should embrace a study of the physical conditions peculiar to children and young people. The instincts, feelings, habits and tendencies should all be thoroughly examined, due attention being paid to the morbid tendencies as well. And the formation of character, both from a mental and moral point of view, should be carefully considered. The latter is a difficult subject, but worthy of deep thought. I do not underestimate the efforts that are made at the present day to understand better the characters and physical and moral needs of young children. But I have often seen children lacking in self-control, correct habits of thought, and a proper appreciation of their duties to society. I have also seen young people ignorant of the value of money, and others who were unable, because of early education, to struggle persistently and successfully for their own support or that of their families. There are many young women unfitted to become wives or mothers owing to improper moral training; and many young people enter the marriage relation almost, if not quite, ignorant of the duties and responsibilities growing out of it. It is but too well known that much misery, unhappiness, ill-health and insanity are the outcome of married life, and it is undeniable that the result, in many cases, would have been very different had the early training been more judicious and discriminating.

By *school education*, I mean book-learning more particularly, though the moral element, as before remarked, can never be left out of sight. The study of books alone should not lead to insanity, but owing to defective systems of school and college education, a large number of cases of insanity from over-study and over-application have been reported.

A general, rather than an individual standard is often adopted, which is too exacting for certain pupils. Especially is this true of girls, who are physically more impressionable than boys during the school years, and break down under a relatively less strain. It is, however, often not the school system alone which is responsible for such cases, but the lives led and sanctioned by the parents at home. This is of such an exacting nature that comparatively little strength remains for the pursuance of school studies, that should be healthful. Only the other day a successful teacher of a young ladies' school complained of the short school hours and the long vacations. She said that her scholars largely lost the habit of persistent, hard study during the four months' summer vacation. The succeeding work would be done in a spasmodic, nervous, restless manner, rather than after a systematic plan; much would be forgotten, and much only half-digested. She thought that undue importance was now attached to physical exercise or recreation. There seemed to her to be a mental and physical "flabbiness," as she called it, in her pupils, perhaps a reaction after the severity of discipline in former years. In spite of the long vacations, etc., many of her pupils broke down from nervous exhaustion. She especially regretted that habits of persistent, systematic work were not formed at school, as such habits were very valuable in after life.

A special study should be made in schools of the laws of health, and the peculiarities and tendencies of every child should receive careful attention even in public schools. There should be, further, a definite system of moral education, extending even to the home-life, and parents and teachers should be on the most friendly and sympathetic terms. The teachers themselves are sufferers from our method of school education, a comparatively large number breaking down physically or mentally. Many suffer from nervous exhaustion, and a certain proportion become patients in lunatic hospitals. In England, the number of governesses entering asylums has been noticeable.

It is very clear that *occupation* must have an important

bearing on the mental and physical condition of every individual. The examination of hospital reports helps to throw light on the apparent connection between the form of employment and mental disease, but these statistics must be accepted with the limitations already indicated. If we take a country lunatic hospital we shall find large numbers of farmers or farm laborers, and the various members of their families, contributing to the hospital population. The number is proportionately large, when we consider the natural and healthful character of the farmer's employment. The actual relative proportion of insanity, however, is greater in the city than country, as it should properly be. The farmer's life, in New England, is often a hard one (it being uphill work to make both ends meet), and it may also be a life with little to arouse, stimulate or occupy the mind. Out-door work is healthful, but the farmer's food is often of poor quality; he pays little attention to the rules of health, and is the victim of dyspepsia, rheumatism and other physical ailments. The farmer's wife is sometimes an indoor slave, working day and night to accomplish her tasks, and getting little fresh air or exercise. She also suffers from lack of society, and the consequent friction against her neighbor's wife, which helps to keep her bright and interested in the world outside herself. While the farmer's life lacks the temptations and opportunities for indulgence in vice, peculiar to the city, it is admirably calculated to foster self-introspection, and a melancholy brooding over the misfortunes and sorrows which daily present themselves.

Among the working classes, there is none, perhaps, more exposed to the favoring conditions of mental disease than factory operatives. The work is in itself confining, monotonous and often arduous. Some of it is poorly paid, and it is done largely by girls and young children. The buildings in which it is done are often situated and arranged without regard to sanitary conditions. Worst of all, the amount of work required is dependent on the condition of the market, which in turn is dependent on the general prosperity of the financial world, as well as the success of the crops. A

period of financial depression is sure to lead to much hardship and suffering, by reason of a greater or less number of the operatives being thrown suddenly out of employment. In England particularly, but also to a large extent in this country, persons of this class are subject to some of the smaller vices, and especially given to intemperance. In spite of the statement of Dr. Yellowlees of the Glamorgan Asylum, who says that the number of male operatives admitted to his asylum during a prolonged strike, was only one-half the number admitted in ordinary times, I am not inclined to draw the inference that lack of employment and of money, are conducive to mental health. I should infer the contrary from my own observation. The less the occupation, the more poverty and domestic suffering and anxiety, I should say, would develop mental and moral weaknesses, and if sufficiently prolonged, be sure to end in a large percentage of cases of mental impairment. In England, Dr. Tuke quotes Dr. Fergusson, who thinks that factory labor in itself does not act prejudicially, the condition of the mills having been much improved in recent years; but the free indulgence in stimulants and smoking acts very injuriously on both parents and children. Large numbers of women are employed in the mills, who must suffer at all ages from physical causes, and, if mothers, their children must also suffer in consequence.

The large class of merchants, mechanics and artisans who carry on the principal part of the business of the country, represent the best element in society, so far as a well-organized mental constitution is concerned. They possess a high degree of average intelligence, without excessive refinement or sensitiveness on the one hand, or ignorance and dulness on the other. We have a right to expect a high degree of mental stability from this class and are not disappointed. It is this class which is the most decidedly American, and which finds itself placed in comparative harmony with its surroundings. It has few bad national habits to unlearn, and is already a part of the institutions of the country. The restless energy and fertility of resource with which the

members of this class are endowed, may carry them beyond the limits of discretion, however, and they break down from overwork, business anxiety, etc. They are also subject to frequent reverses, incident to the new and untried conditions of life and business, peculiar to a large, rich and recently settled country, and find in sudden and unexpected loss of fortune, a not infrequent source of mental strain leading to eventual insanity.

In regard to the learned professions, very little can be positively said; though, without doubt, the exacting demands of these professions, with the frequent difficulty of obtaining remunerative work, and a poor physical foundation to work upon, render the occurrence of insanity a frequent probability. Notwithstanding that hospital statistics often lead to wrong inferences, they are always interesting and instructive. If we look at the table of occupations of patients admitted into the Pennsylvania Hospital, of which the late Dr. Kirkbride was superintendent, we find that, of 4,557 male patients admitted in forty-one years, 488 were farmers, 437 merchants, 100 physicians, 107 lawyers and 56 clergymen. The number of farmers and merchants, at first sight, appears small. The farmers, however, would have been more numerous in a public institution in the rural districts, and the merchants represent strictly only persons doing a purely mercantile business. Other hospital superintendents, perhaps, would not have separated druggists, manufacturers, jewellers, grocers, confectioners, and persons of even more humble business callings, from the general class of merchants. The learned professions, at first sight, appear to figure somewhat prominently, — a fact largely explained, however, by the proximity of the hospital to the city of Philadelphia, as well as by its private character, and the high reputation of its superintendent. Taking the whole number of male patients, the proportion is not small, and certainly enough to show that members of the learned professions are, like all other classes of the community, apt to break down under a severe mental and physical strain. The number of students breaking down and becoming insane,

and who would otherwise enter the learned professions, should also be taken into account in estimating the amount of insanity in this class, and fortunately Dr. Kirkbride's tables enable us to do this. We find 86 students: 23 students of medicine, 12 of law and 14 of divinity, or a total of 135 students. If we add these to the 263 members of the medical, legal and clerical professions, we find that, out of 4,557 of Dr. Kirkbride's patients, 398 were fairly entitled to belong to the so-called learned professions.

If we wish to regard another picture, we can turn to the Fifteenth Annual Report of the Connecticut Hospital for the Insane. We find from this, that in fifteen years 1,114 men were admitted, among whom there were 1 clergyman, 5 physicians, 2 lawyers and 1 student, or a total of 8. This would make a percentage of less than one, while in the Pennsylvania Hospital the percentage exceeds nine! The deception of figures is clearly shown by these instances.

In every hospital report there is always a very appreciable number put down under the head of *no occupation*. These figures are usually quite misleading, for many patients who have had an occupation in early life, or in prosperous times, but have been out of it for years, on entrance to the hospital give the old calling as their present employment. The number is always large, however, who are found to have no employment, there being 77 out of 1,114 males admitted into the Connecticut Hospital in fifteen years. Out of Dr. Kirkbride's 4,557 male admissions, there were 665 with no occupations. The absence of occupation in this large proportion of cases, indicates the serious consequences of the lack of employment. While a small number of people of cultivated tastes and with the numerous resources of art, science and money, can live without regular occupation, as a rule the native American or the resident foreigner is out of place unless systematically employed at some kind of business, trade or profession. Lack of employment is often an indication of mental incapacity or feebleness, and is demoralizing under any circumstances of ordinary bodily health.

Nothing is better for the mind than the steady strain of a proper occupation, and this should always be insisted on.

I have taken no note of the number of unoccupied women, as the larger part of those classified as having no occupation often have some modified form of employment at home, and it is more difficult to settle on what, in many cases, should be regarded as employment for women. As women take up more of the kinds of work now monopolized by men, this will become an easier matter. In this connection it is interesting to learn, from the last English census, that the number of women working in the fields had diminished from 378,700, in 1861, to 64,000, in 1881, and the number of women engaged in professional callings increased from 96,000, in 1861, to 196,000, in 1881.

As I have said under the head of education, many young people enter into the marriage relation with little or no idea of its peculiar conditions. They may have lived at home and have observed, as they supposed, the conduct of married people, and yet have very little knowledge on the subject. It is not desirable that they should know all the trials and limitations of married life, but they should be fitted, unconsciously if possible, for the marriage state in some ways, and they should be made to realize its seriousness, and the need of entering into an engagement with a feeling of future responsibility. Marriage must, under any circumstances, to a certain extent be a matter of accident, but wise teachings and careful guidance will form and develop the judgment so that it will be less liable to error. Certain customs can be established by society which will partially obviate some of the present dangers of marriage. For instance, a fair condition of mental and bodily strength should be a pre-requisite, and no man or woman should ultimately be allowed to marry unless healthy. Many of the most serious bodily diseases are constantly transmitted by marriages that should never have been allowed, and the transmission of moral and mental peculiarities, as we have shown elsewhere, are many and complicated. Such are the effects upon the offspring. Upon the married pair themselves, idiosyncrasies, mental

and physical defects, lack of business capacity, etc., must react injuriously.

One of Dr. Kirkbride's tables, in his Forty-first Annual Report, shows the following in regard to the civil condition of 8,480 patients admitted : 2,220 males and 1,618 females, or a total of 3,838, were single ; 2,094 males and 1,821 females, or a total of 3,915, were married ; 484 were widows, and 243 were widowers. As far as these figures go, we should infer that while the totals of each sex admitted to lunatic hospitals, single and married, are about the same, more single men become insane than married men, and more married women than single women. Widows might naturally be expected to enter lunatic hospitals in larger numbers than widowers, because of the increased struggle for existence to which they would be exposed after the death of their husbands. Dr. Earle has come to this conclusion. He finds a close approximation between the numbers of the single and married of both sexes admitted to lunatic hospitals. Bucknill and Tuke think the chances of insanity greater in celibates than in married men, and regard celibacy as a predisposing cause. Consanguineous marriages have been frequently discussed in relation to insanity. I have already referred to them in speaking of the Jews. Dr. Jarvis, quoted by Bucknill and Tuke, has said that if both parents have a perfect constitution, the offspring have a double security against imperfection ; *the converse being also true*. The objection (to intermarriage) does not arise from "*the bare fact of relationship*." Bucknill and Tuke refer to the success of in-and-in breeding in animals, and the successful intermarriages of some races, but do not favor intermarriage. They say that "although consanguinity in itself does not create mental disease, it is so difficult to insure the sound constitutions of the parties marrying, and of their ancestors, that the marriage of those near of kin is very often undesirable."

The conclusions to be drawn from what I have written are in part the following :—

1. That so far as the causation of insanity is concerned, the statistics of insane hospitals are unavoidably incomplete and unreliable.

2. That the insanity of the present day is peculiarly the disease of an imperfect civilization.

3. That the foreign population of America largely increases the aggregate amount of insanity, and indirectly acts as a causal element in producing insanity in the native population.

4. That heredity, both in relation to mental, moral and physical conditions, is of greater importance in the causation of insanity than is generally supposed. And, further, that environment tends to perpetuate heredity.

5. That bad education, lack of education and over-education, increase the number of persons becoming insane; while, on the other hand, a good system of moral and school education is a powerful influence in preventing insanity.

6. That certain occupations are more favorable to the development of insanity than others, while want of occupation is frequently a cause, sometimes an early indication, of insanity.

7. That ill-assorted marriages increase insanity; but celibate men, and probably celibate women, are more prone to insanity than the married. And further that consanguineous marriages are attended with too much uncertainty to be entered on except in rare cases.

